

FIG. 1A

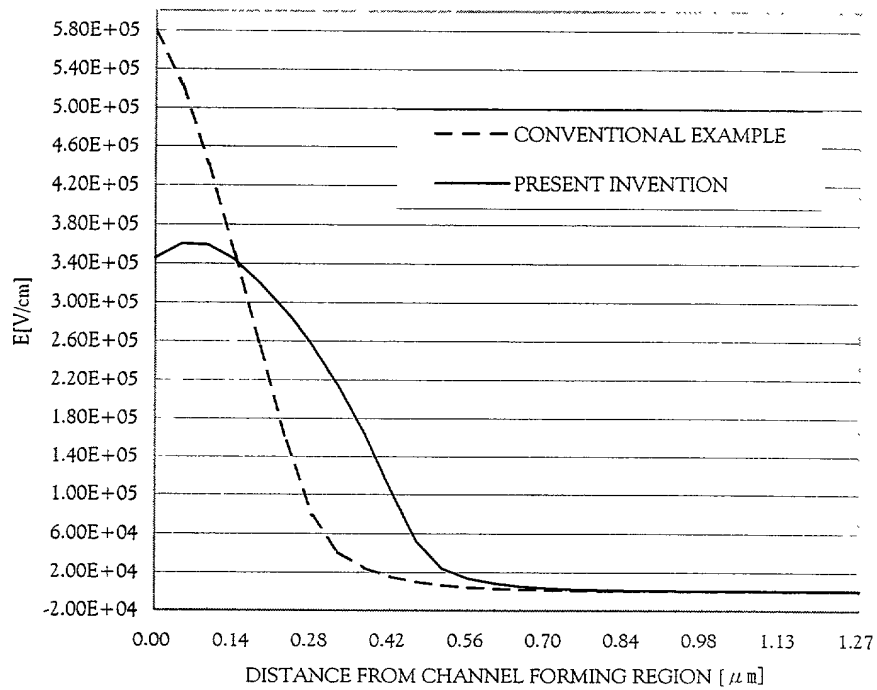


FIG. 1B

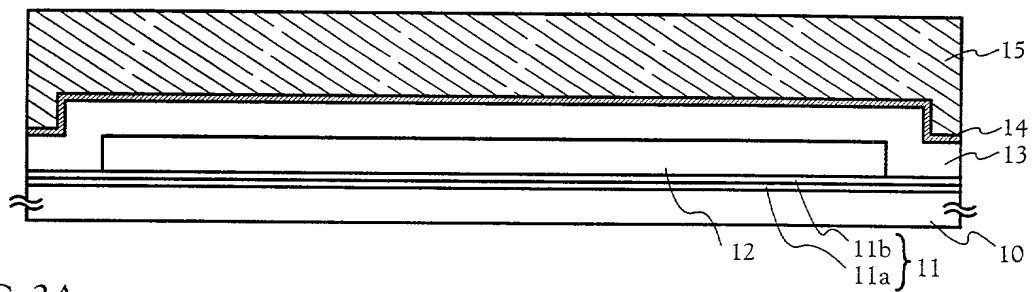


FIG. 2A

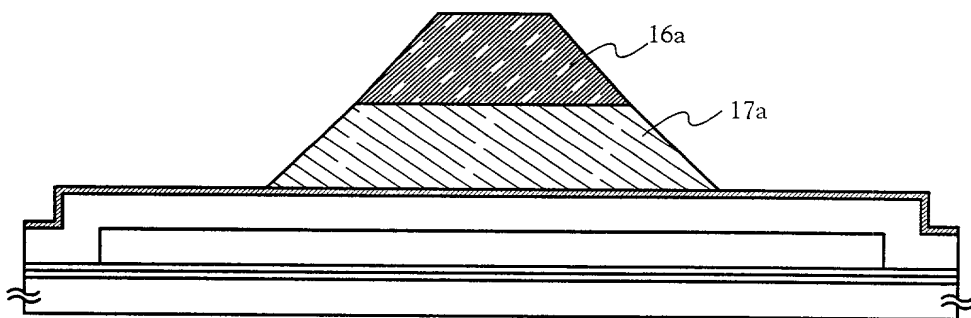


FIG. 2B

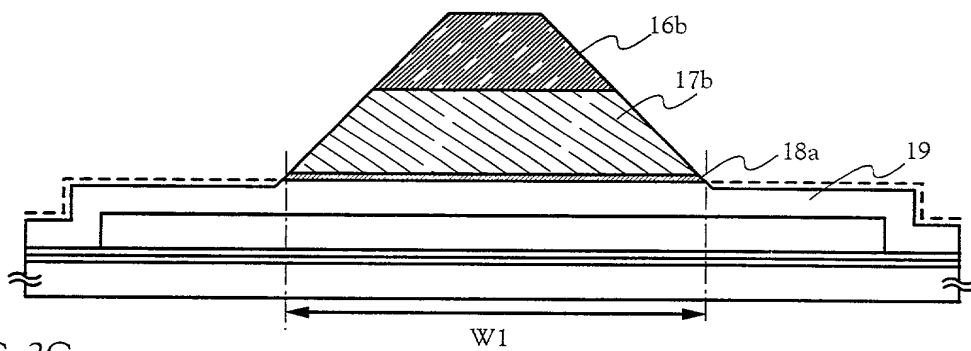


FIG. 2C

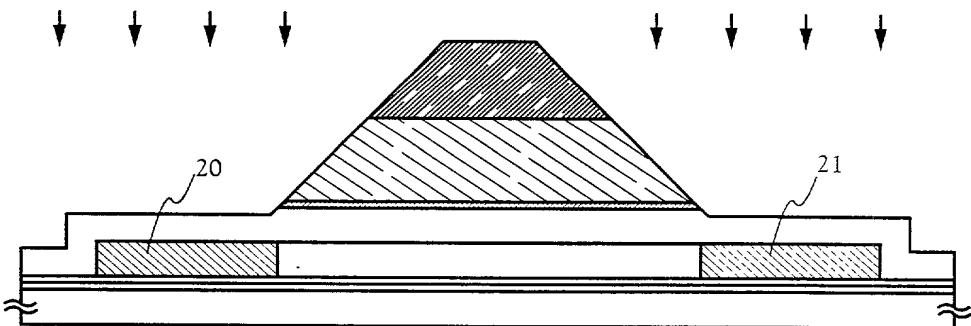


FIG. 2D

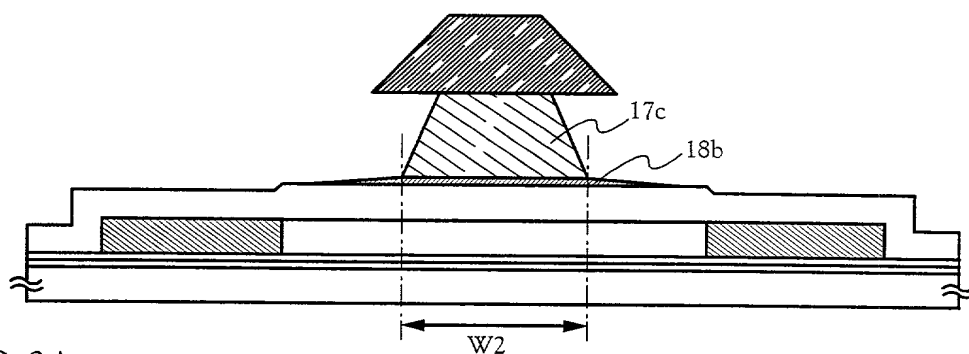


FIG. 3A

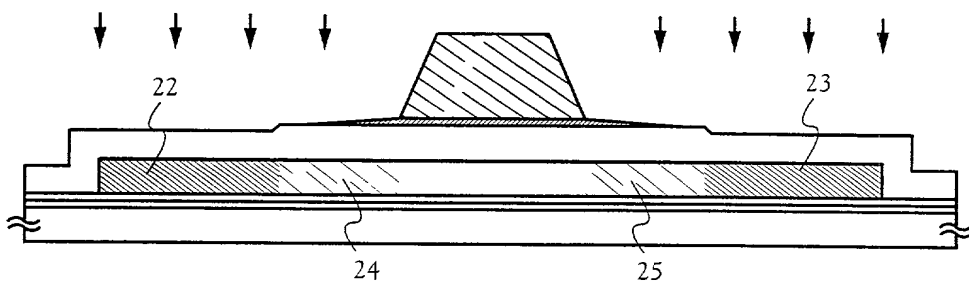


FIG. 3B

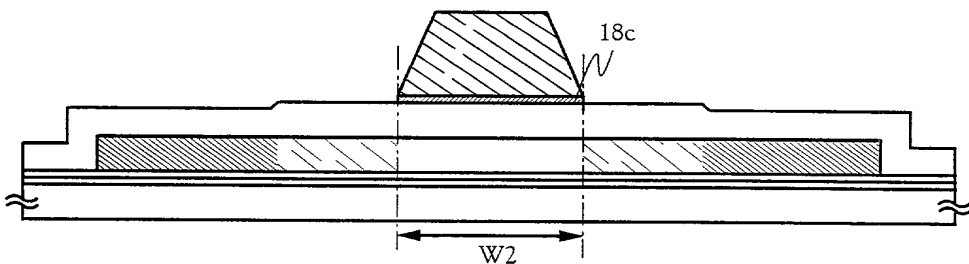


FIG. 3C

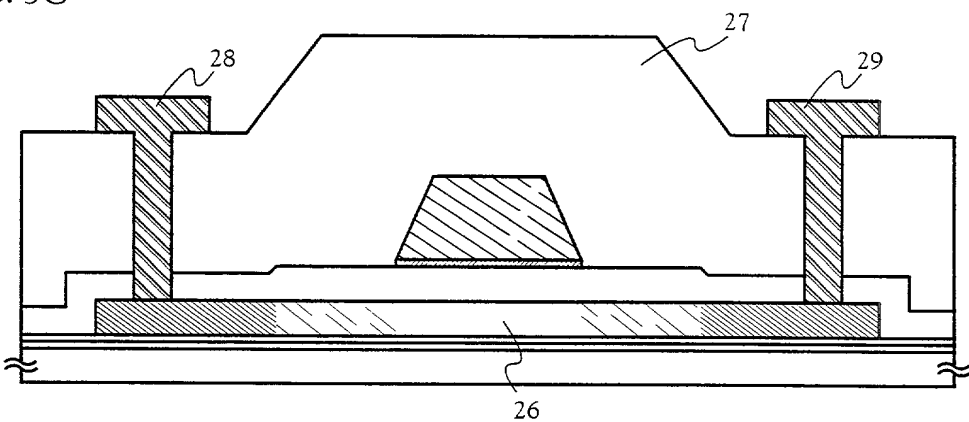


FIG. 3D

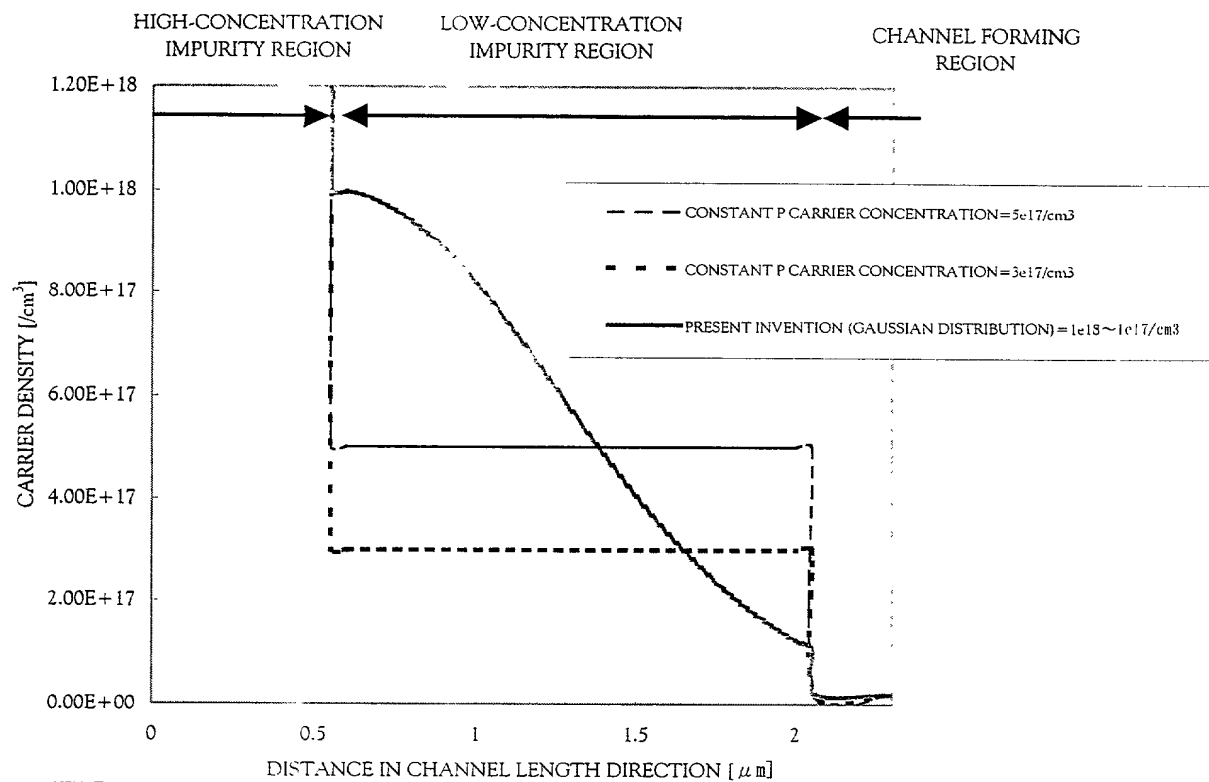


FIG. 4

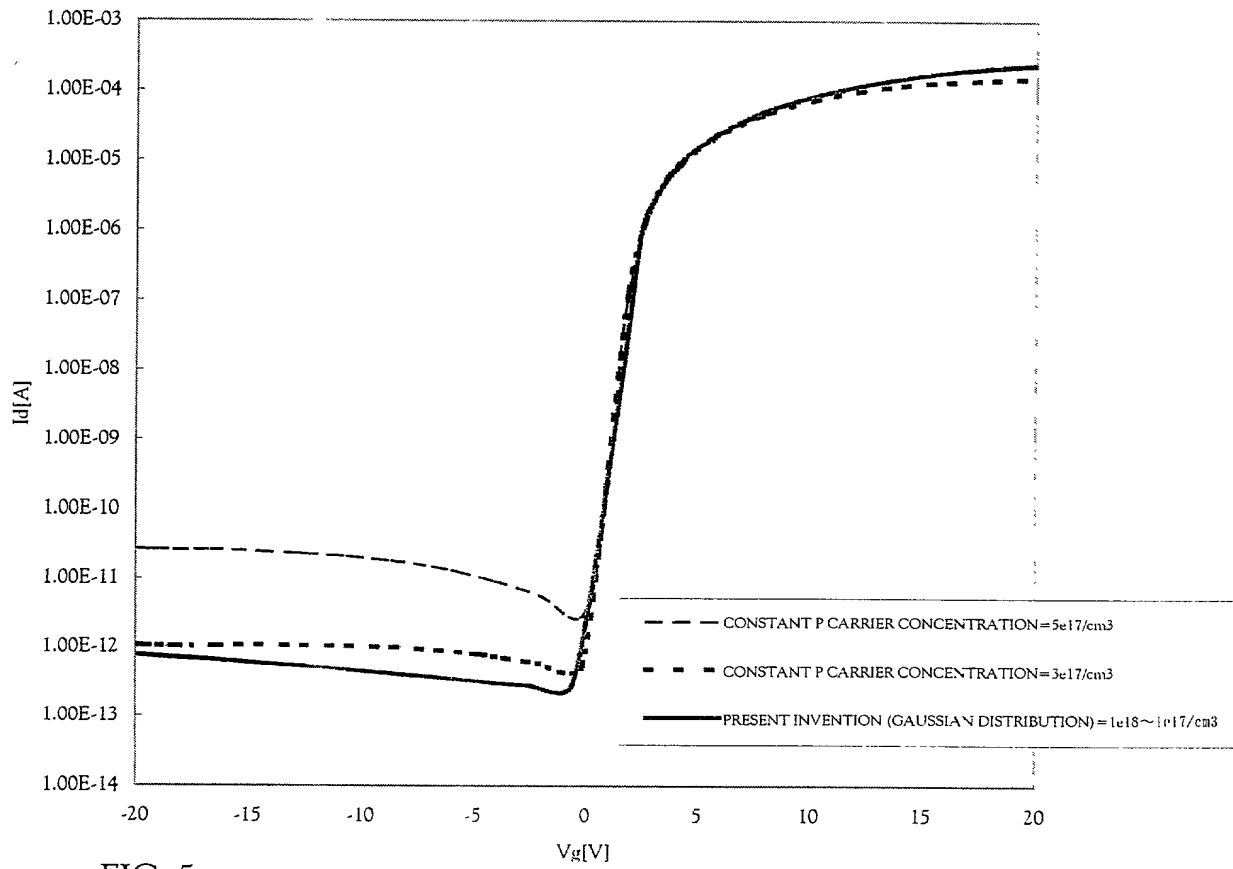


FIG. 5

Id-Vg CURVE $V_d=14V$ $L/W=6/4$

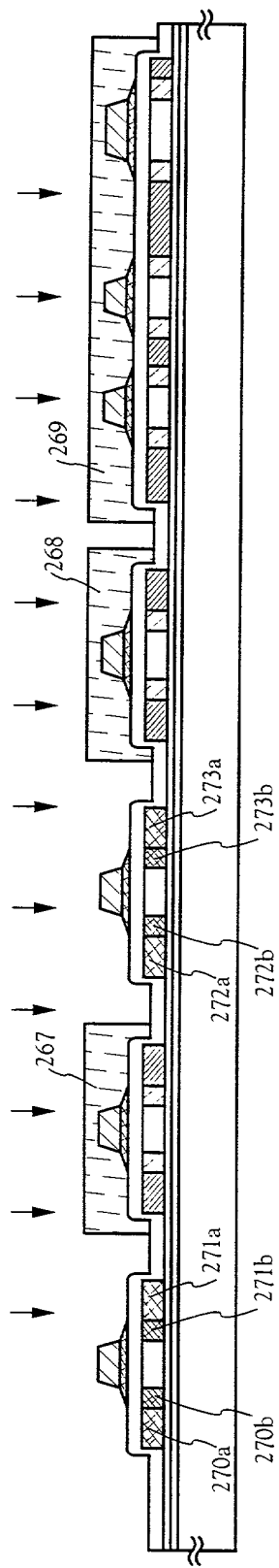


FIG. 7A

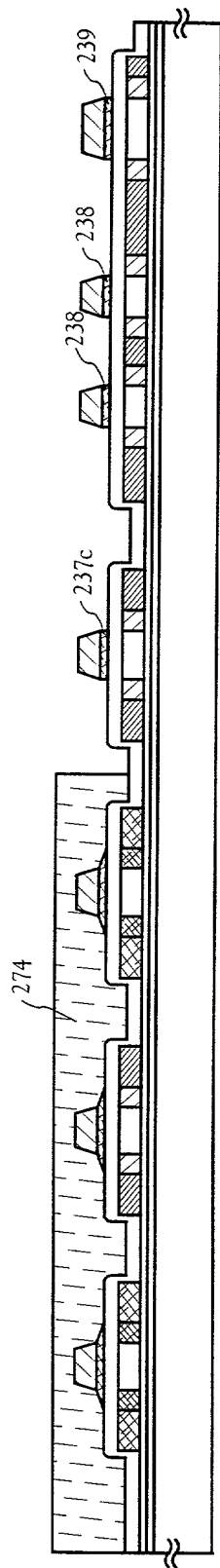


FIG. 7B

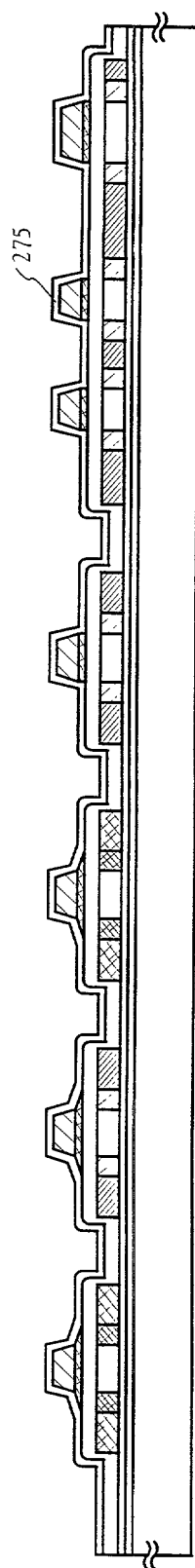


FIG. 7C

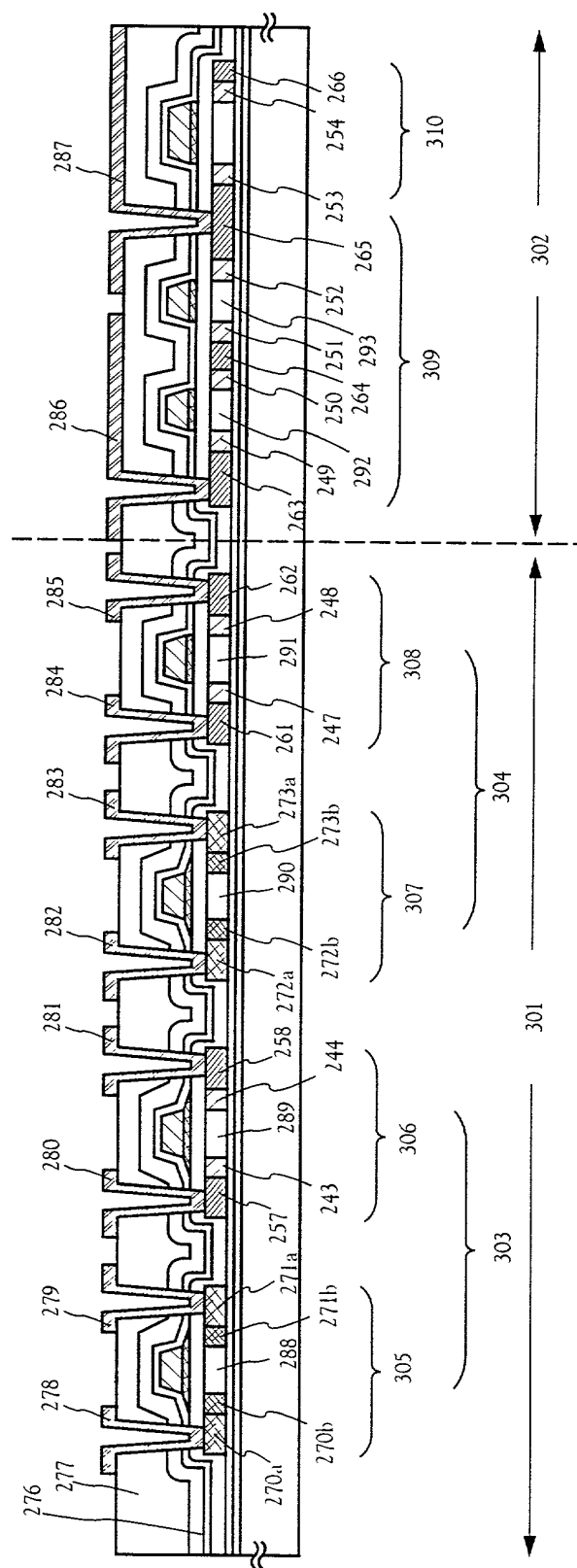


FIG. 8

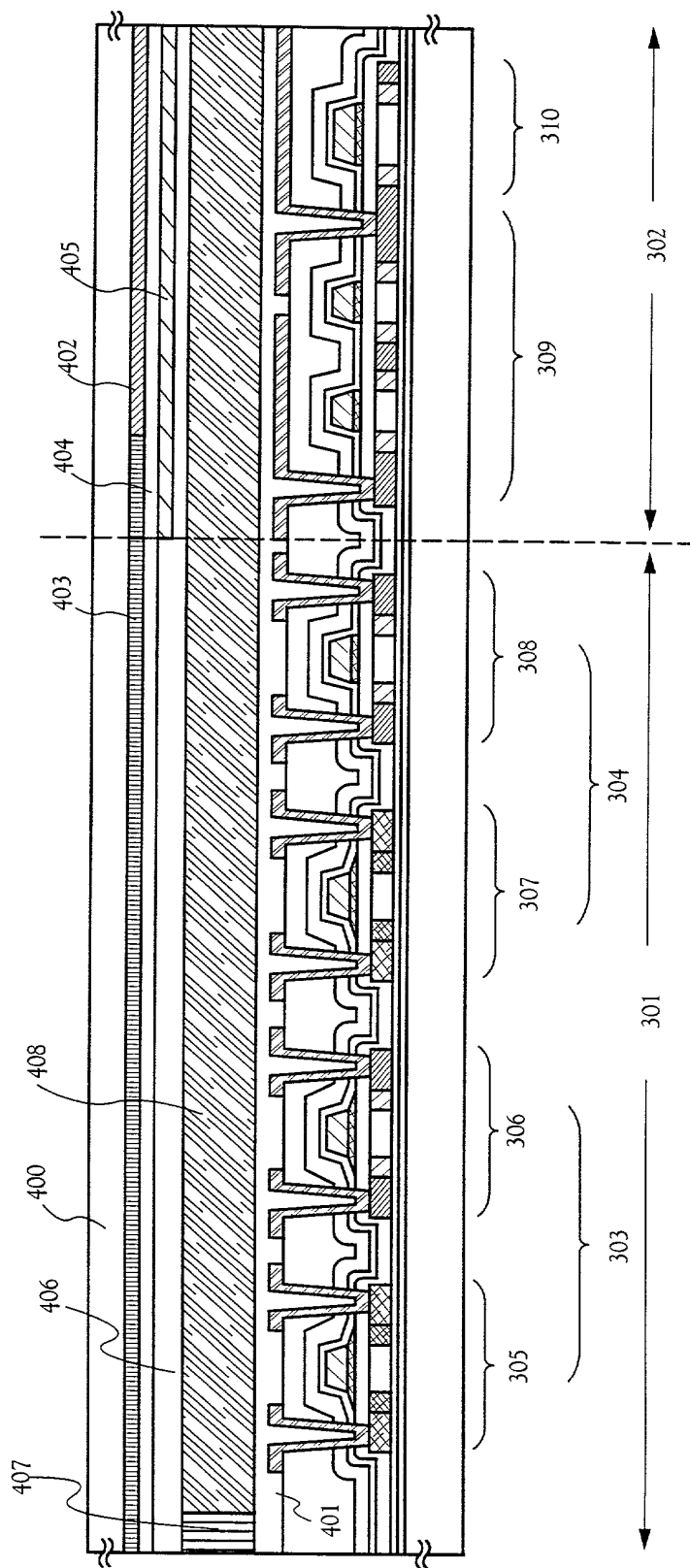


FIG. 9

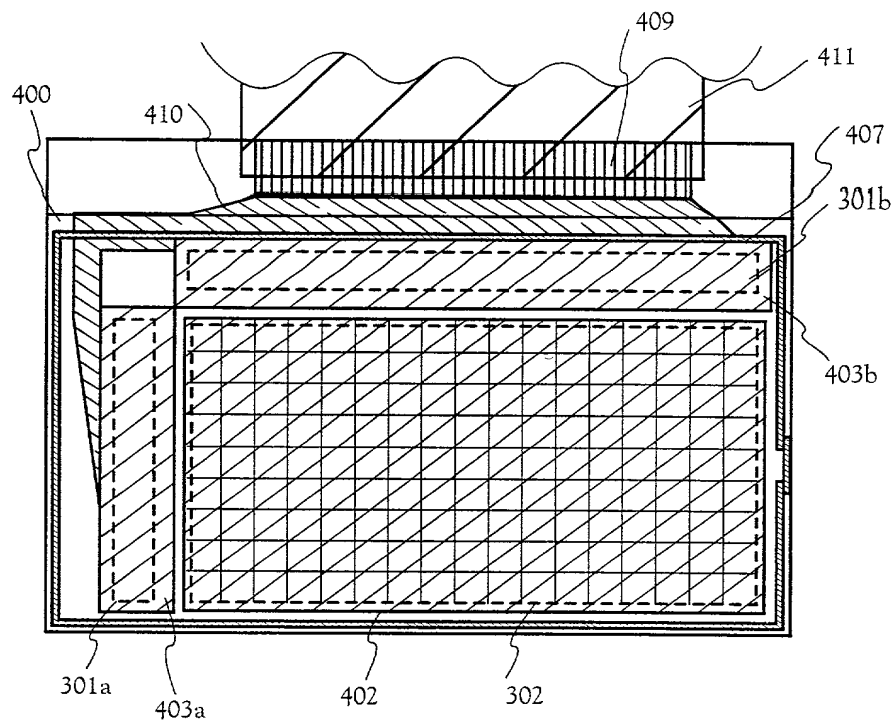
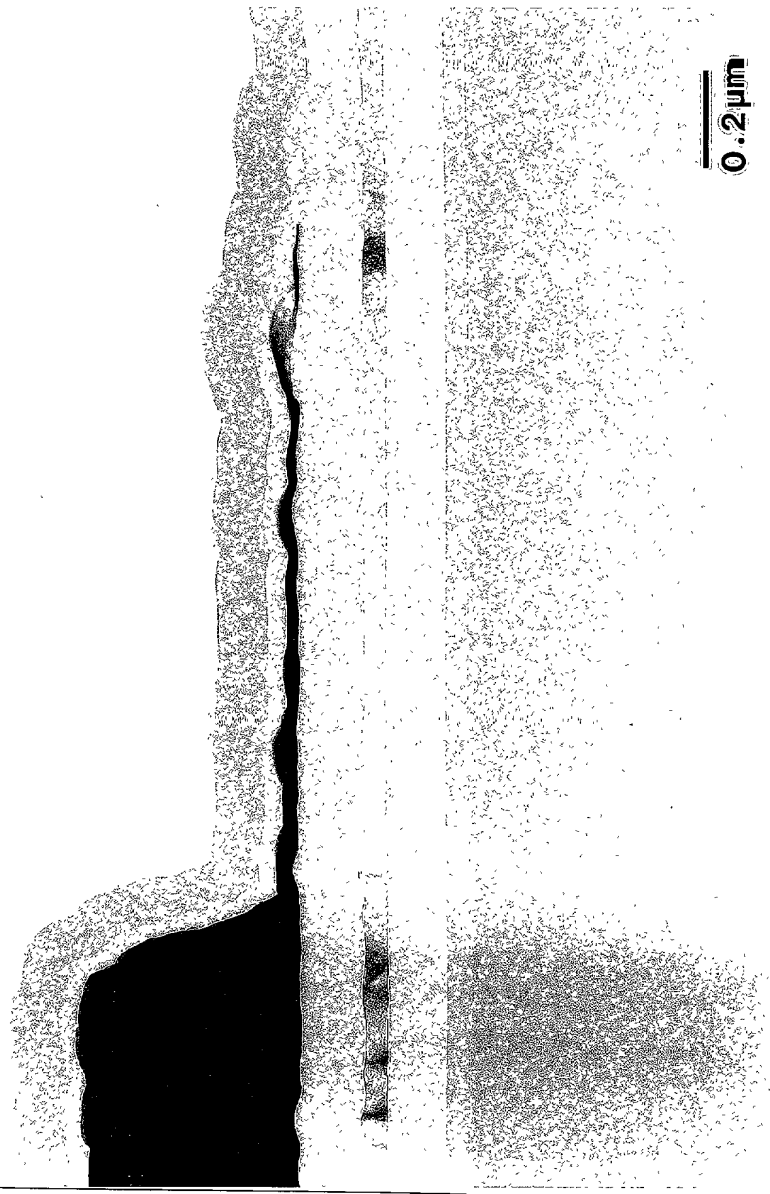


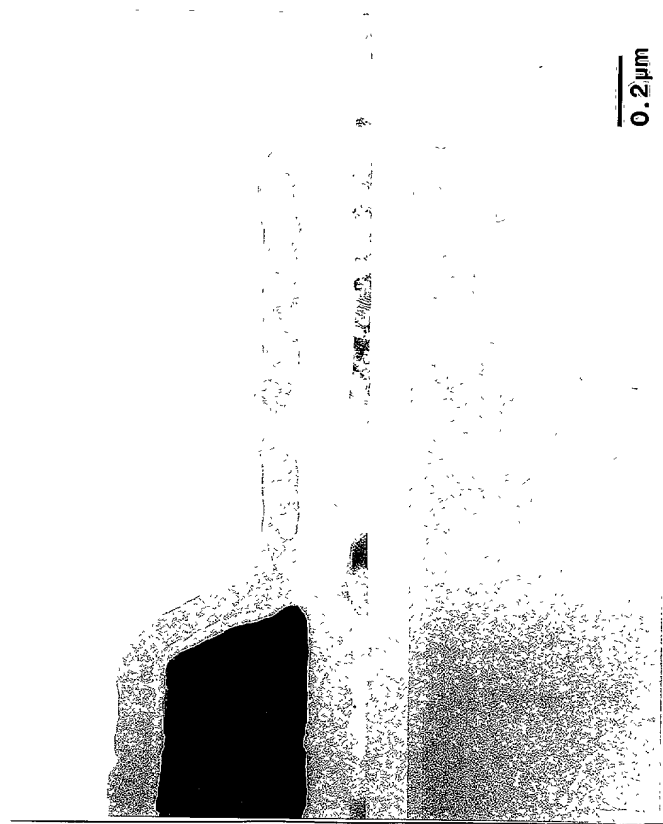
FIG. 10

FOOT" 4442001



TEM PHOTOGRAPH
(CROSS SECTION)

FIG. 11



TEM PHOTOGRAPH
(CROSS SECTION)

FIG. 12

(N-ch, L/W = 6/4, T_{ox} = 115)

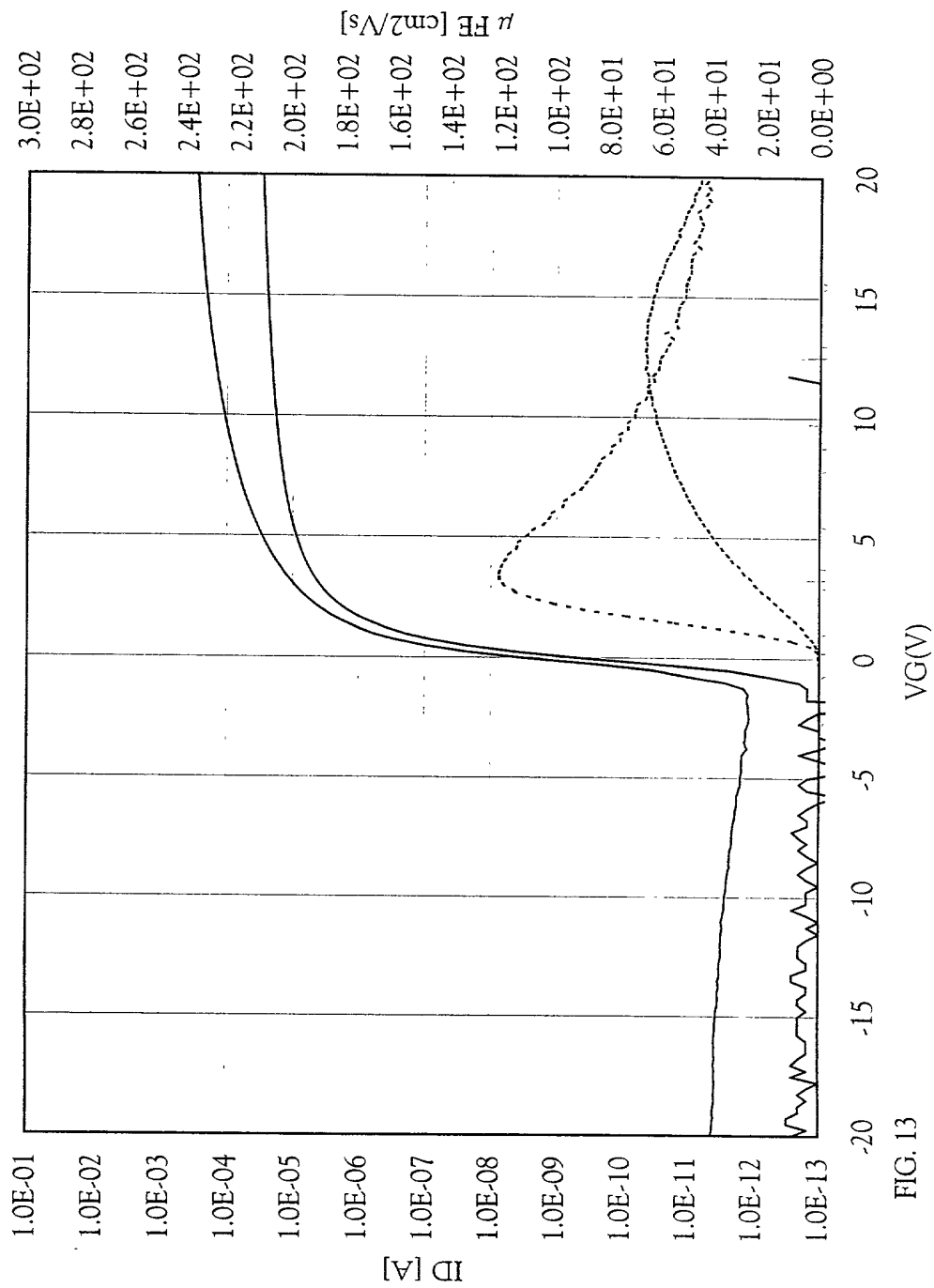


FIG. 13

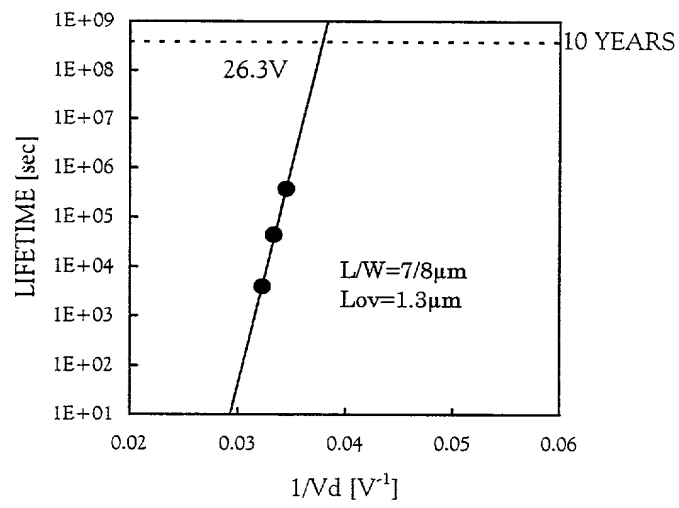


FIG. 14

DRIVING CIRCUIT TFT
10-YEAR GUARENTEE VOLTAGE

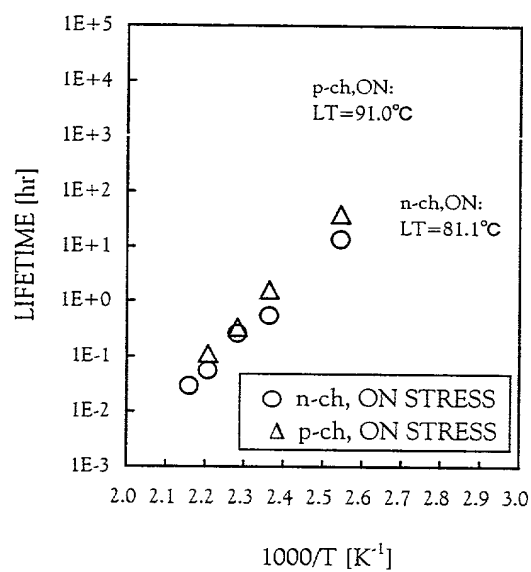


FIG. 15

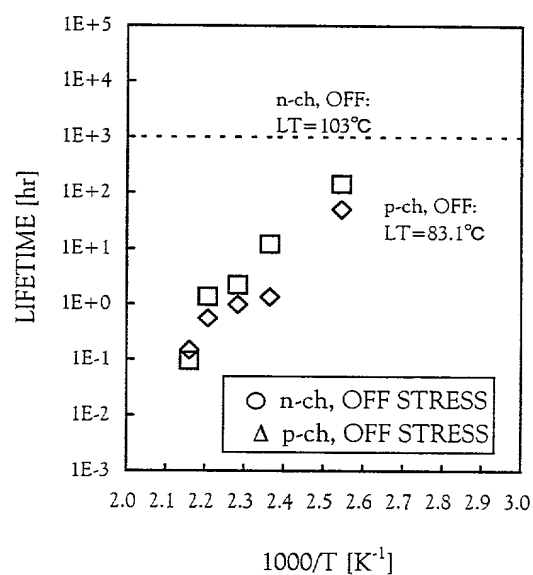
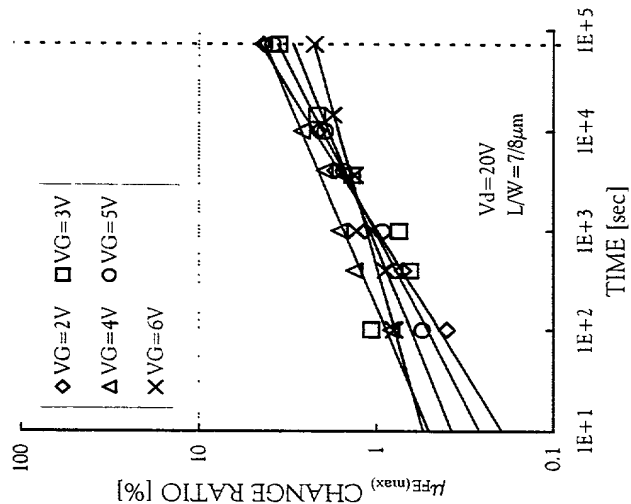
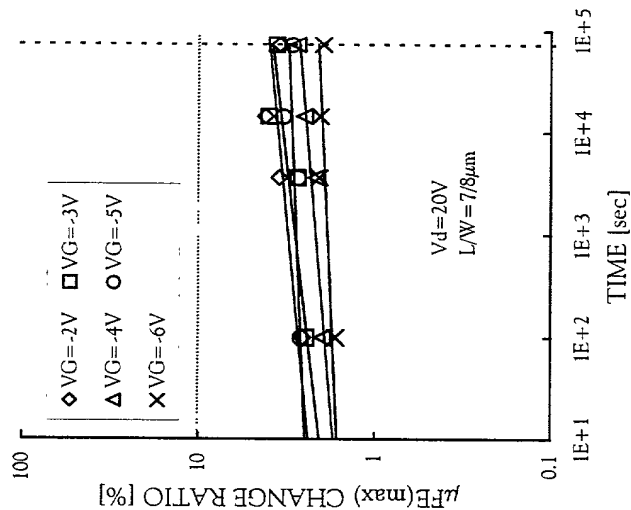


FIG. 16



CHARACTERISTICS CHANGE OF
N-CHANNEL TFT
UNDER TRANSIENT STRESS

FIG. 17A



CHARACTERISTICS CHANGE OF
P-CHANNEL TFT
UNDER TRANSIENT STRESS

FIG. 17B

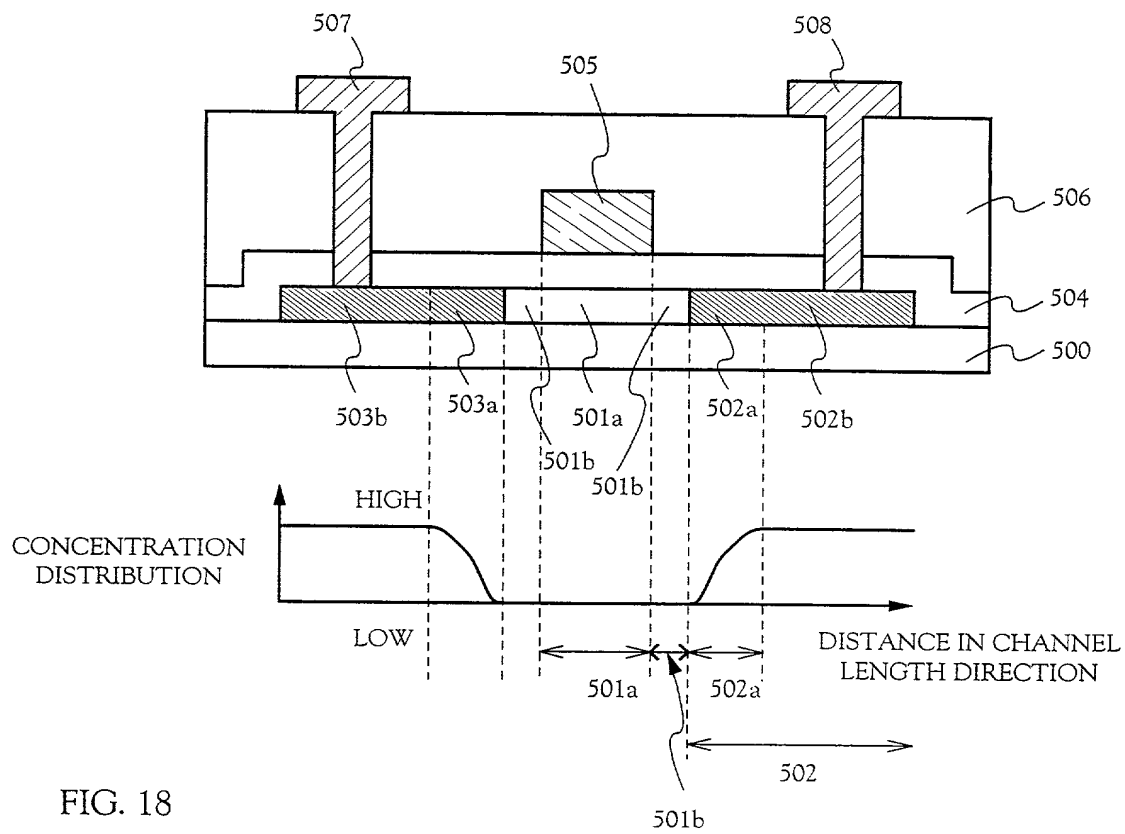


FIG. 18

(N-ch, L/W = 6/4, Tox = 115)

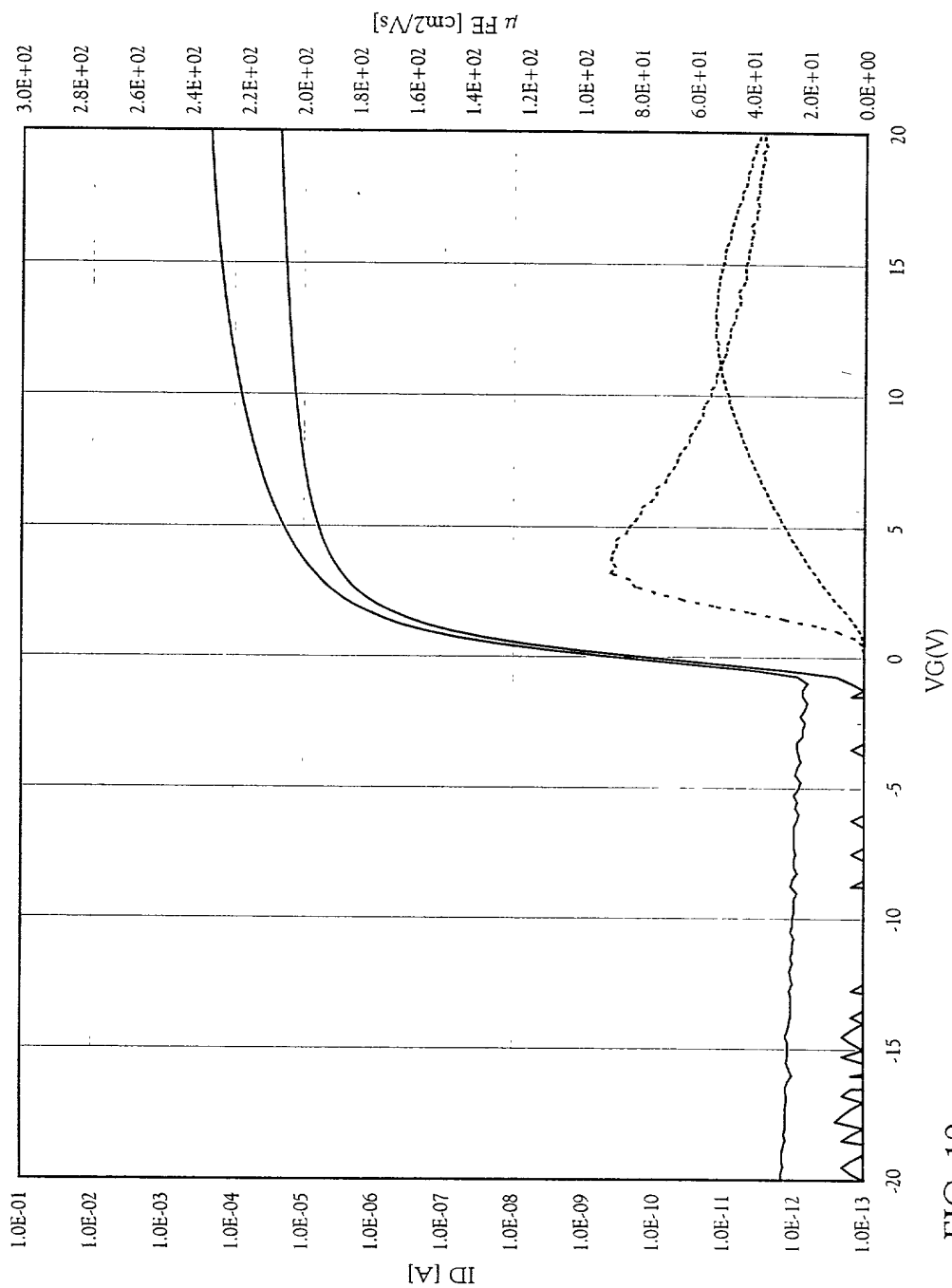


FIG. 19

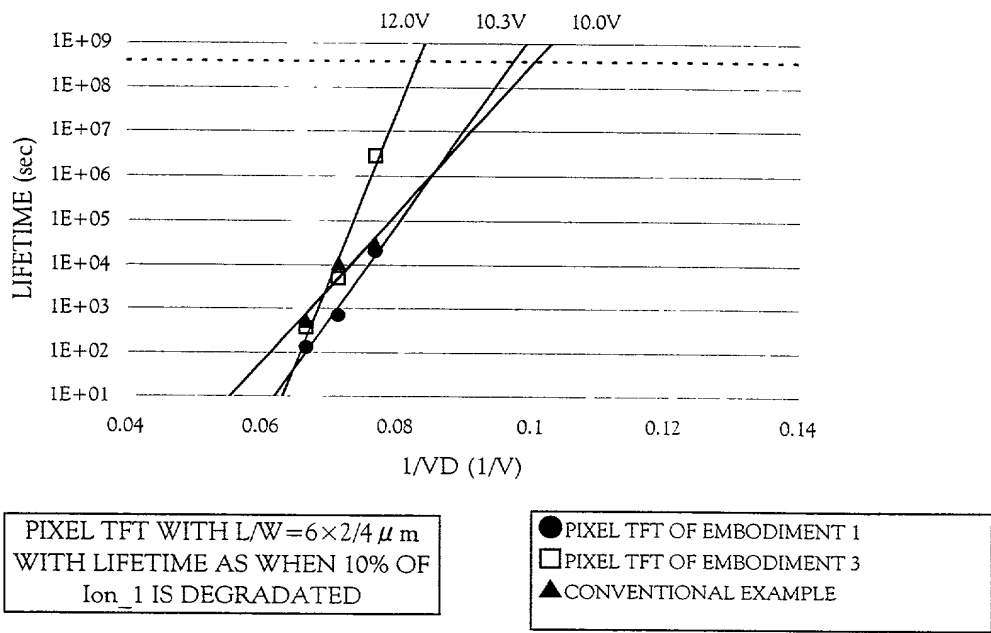


FIG. 20

MEASUREMENT RESULT OF
10-YEAR GUARANTEE

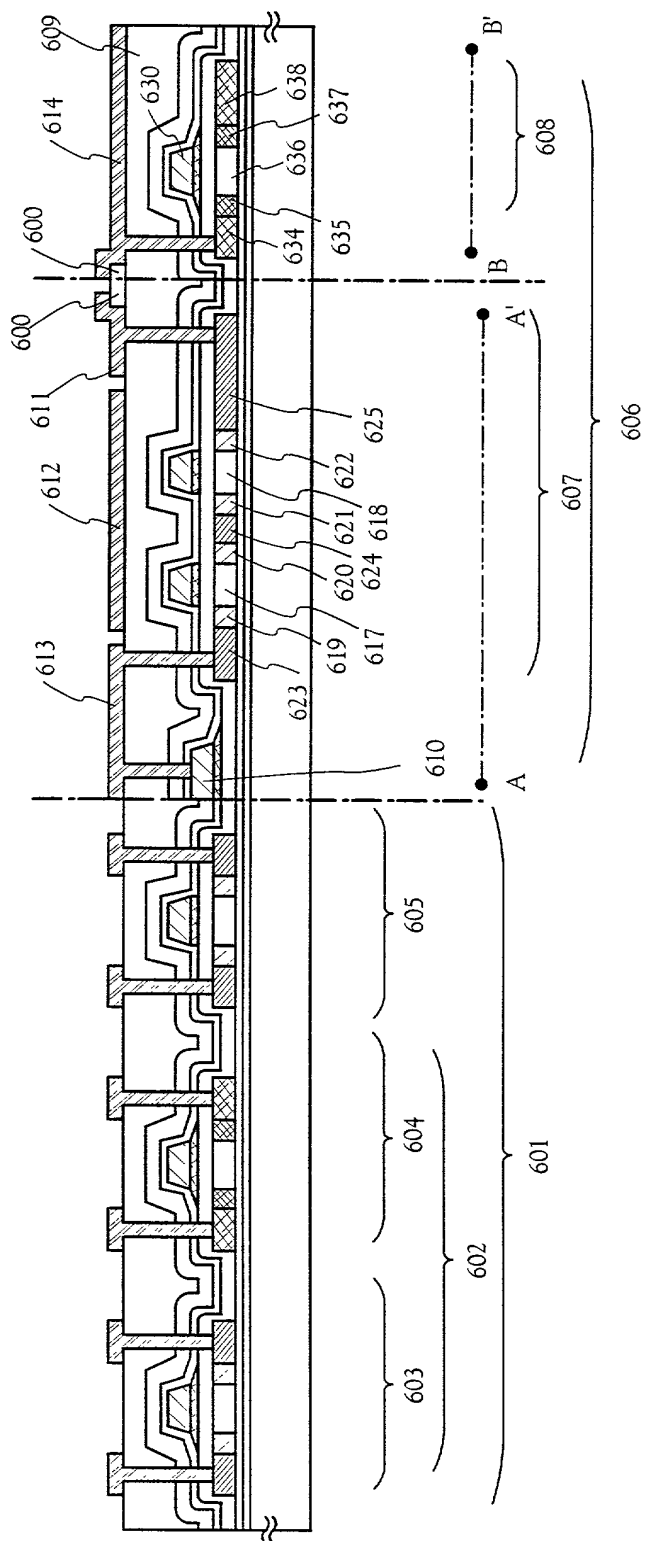


FIG. 21

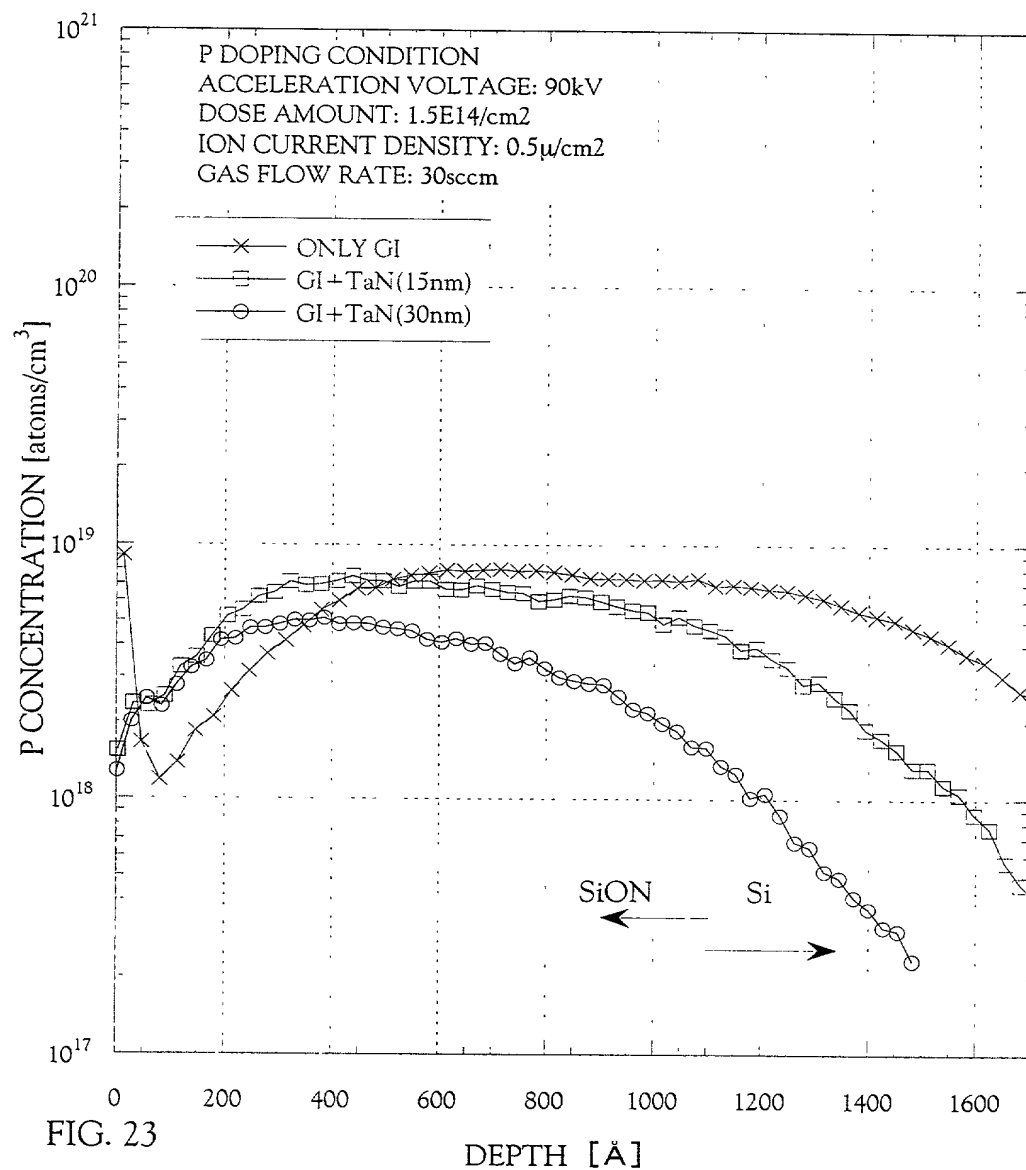


FIG. 23

PHOSPHORUS CONCENTRATION DISTRIBUTION (SIMS ANALYSIS)
 IN GI (SiON: 1100 Å) AND SEMICONDUCTOR LAYER (Si)
 IN SECOND DOPING PROCESS

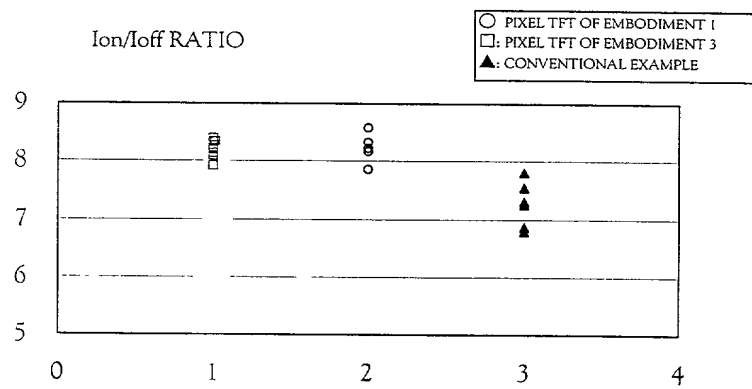


FIG. 24

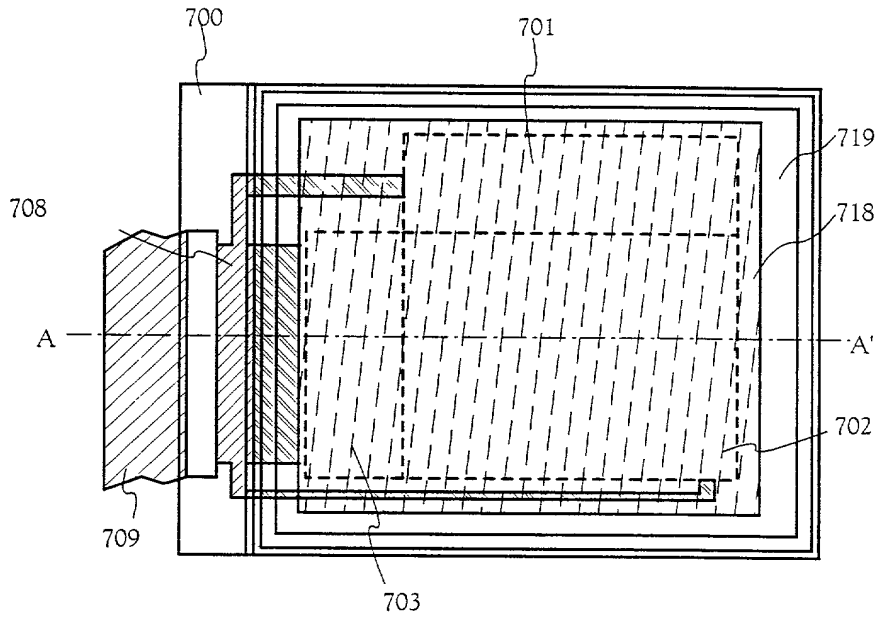


FIG. 25A

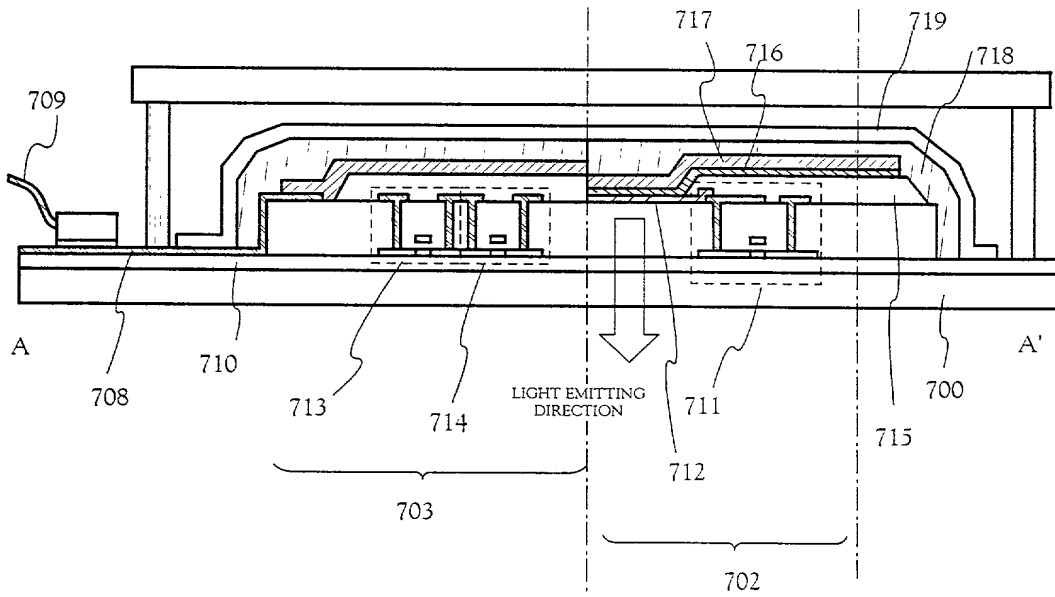


FIG. 25B

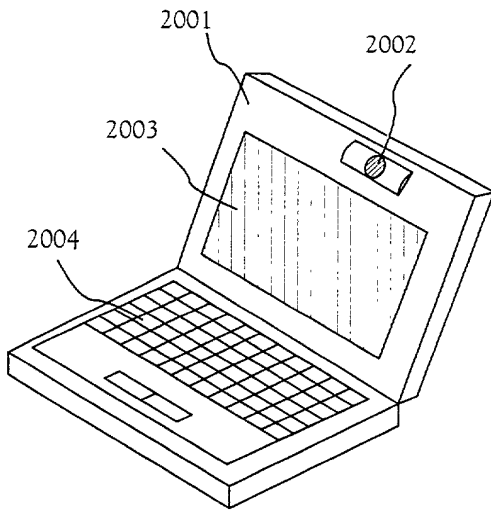


FIG. 26A

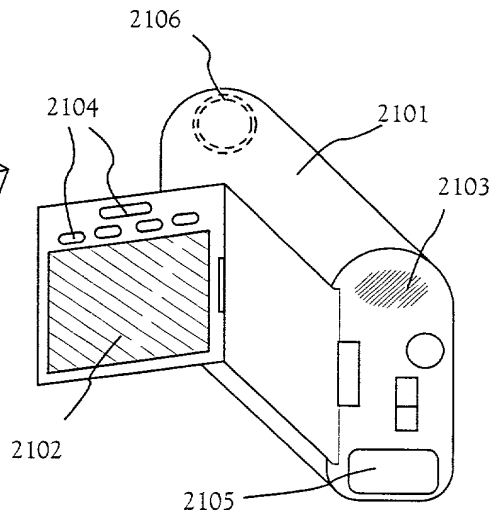


FIG. 26B

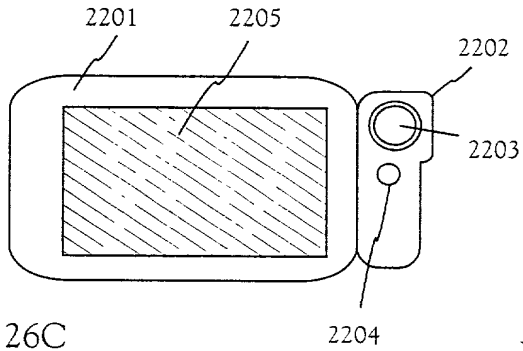


FIG. 26C

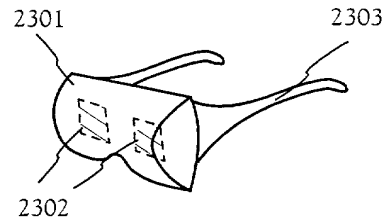


FIG. 26D

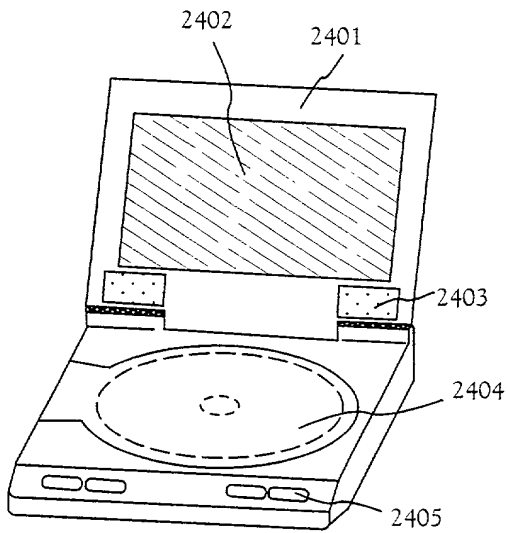


FIG. 26E

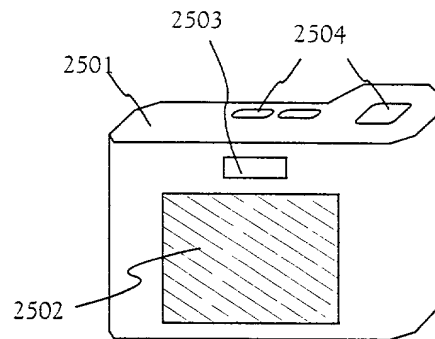


FIG. 26F

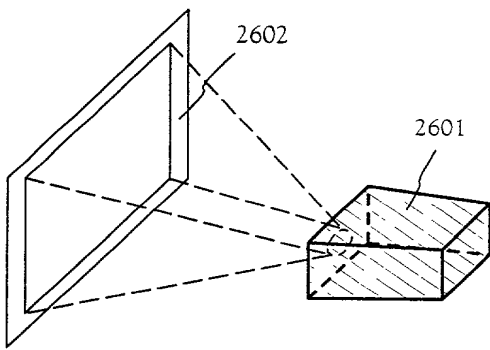


FIG. 27A

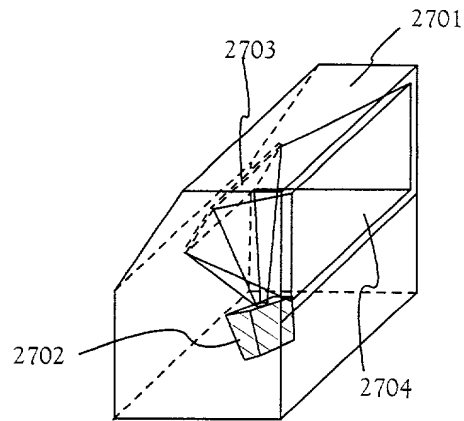


FIG. 27B

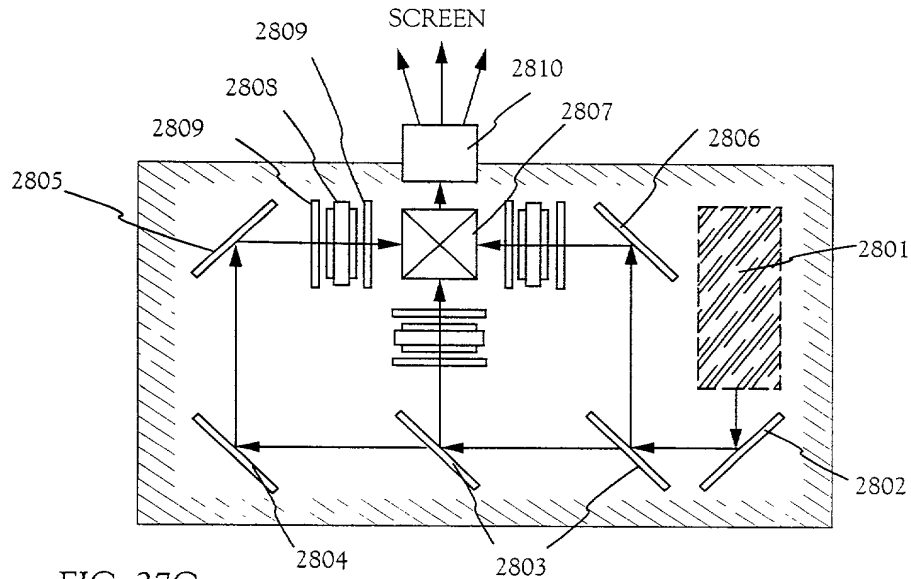


FIG. 27C

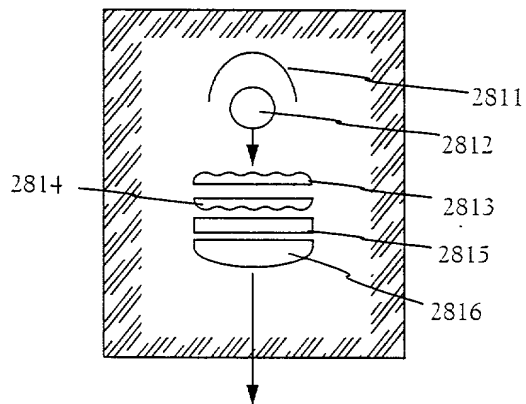


FIG. 27D

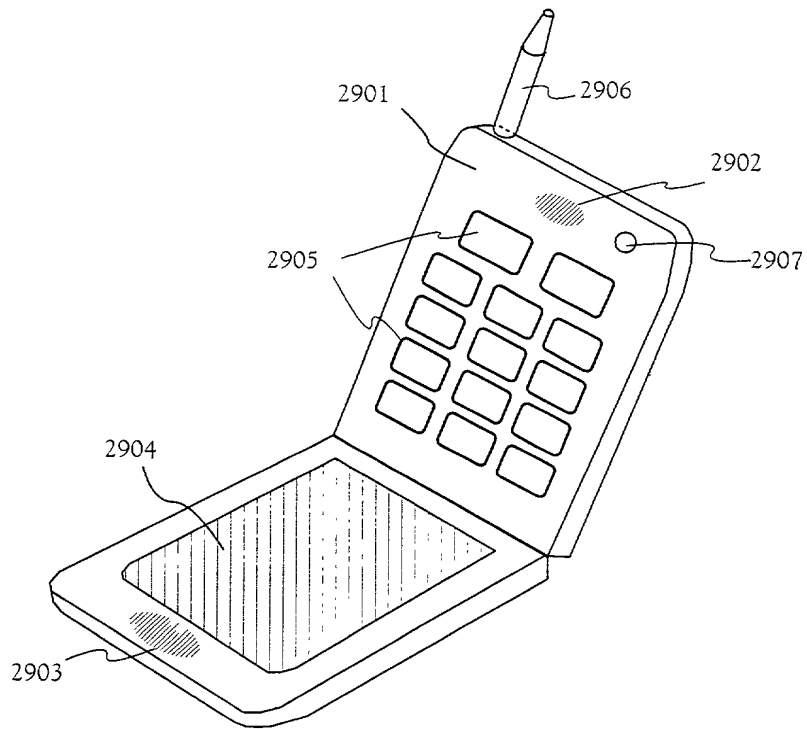


FIG. 28A

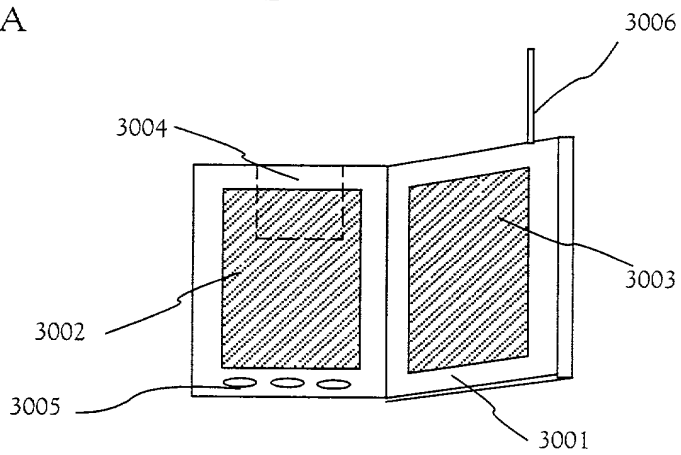


FIG. 28B

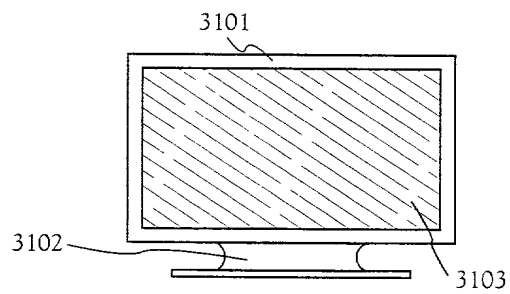
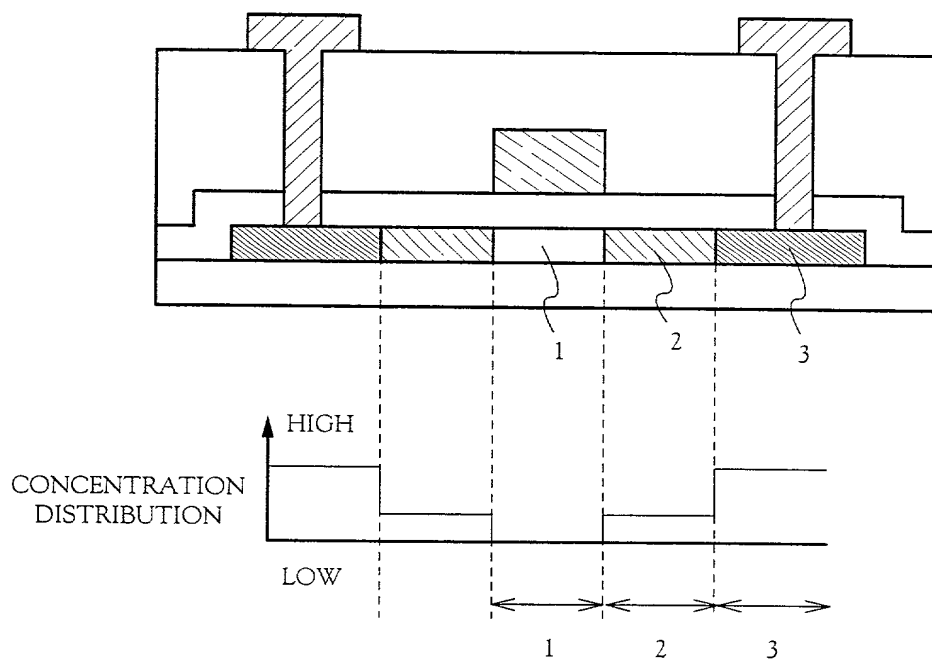


FIG. 28C



PRIOR ART

FIG. 29

(N-ch, $L/W = 6/4$, $T_{ox} = 115$)

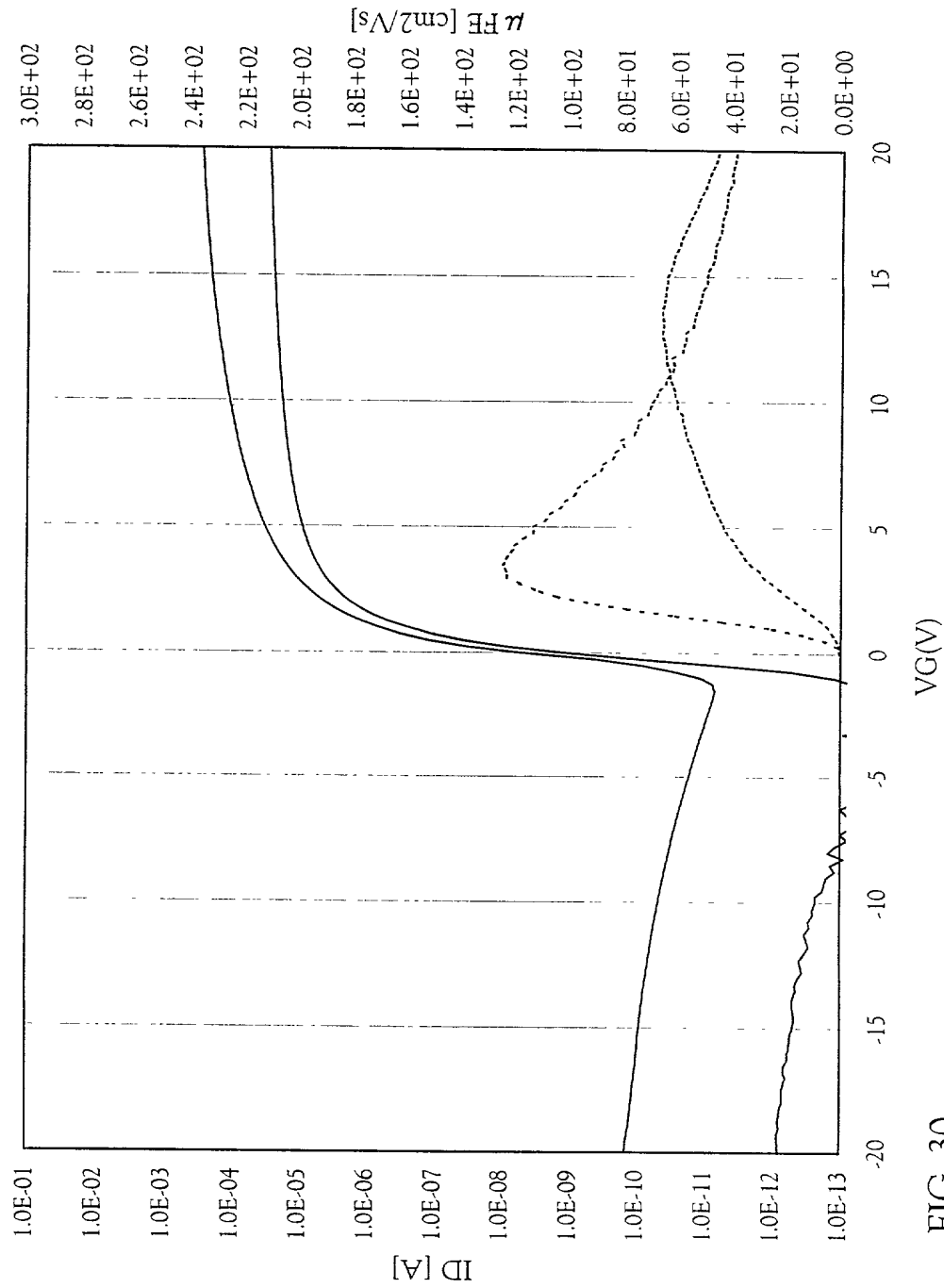
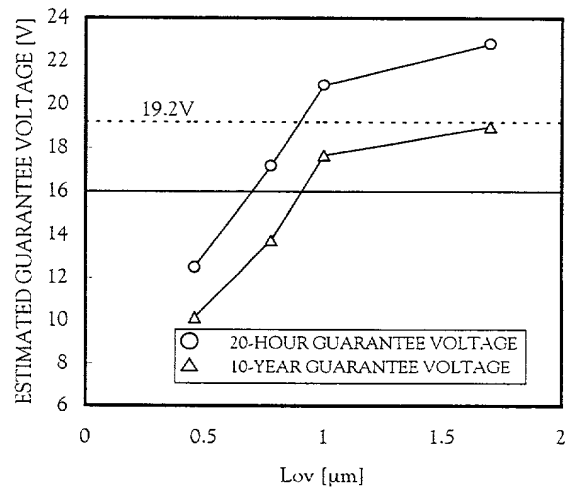
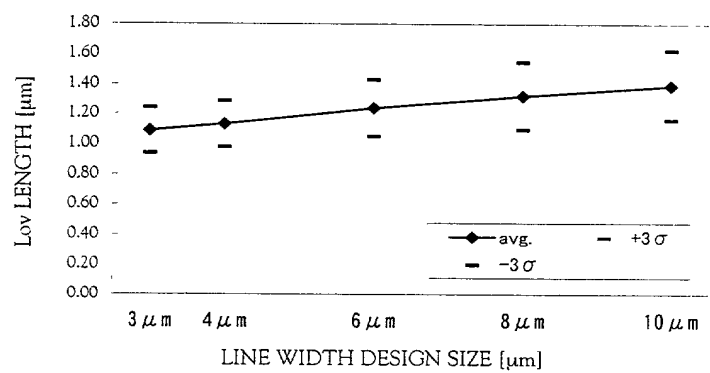


FIG. 30



DEPENDENCE ON L_{ov} LENGTH OF ESTIMATED GUARANTEE VOLTAGE
(10% OF ON CURRENT IS DEGRADATED)
($L_g/W = 10/8 \mu\text{m}$)

FIG. 31



VARIATION OF LINE WIDTH DESIGN SIZE AND Lov LENGTH

FIG. 32